

# Claims

- [c1] A system for returning contact information of one type in response a query having different contact information of the same type, for the entity, comprising:
- a data storage means for storing data;
  - a database of contact information for a plurality of entities, which resides in said data storage means;
  - a first means for receiving one or more queries, each comprising at least one element of contact information for each entity;
  - a second means for accessing and searching said database that (d1) compares the contact information in said query to the contents of said database, (d2) identifies contact information in said database related to said entity in said query, and (d3) identifies alternate contact information of the same type as said query which is related to the entity; and
  - a third means for responding to queries that returns, in response to said query, different contact information of the same type as query, said different contact information corresponding to the same entity as said query.
- [c2] A system, as in Claim 1, wherein said second means fur-

ther comprises:

a means for searching said database for the existence of a first type of contact information which is contained in said query;

a means for identifying contact information of a second type which is related to the same entity as said query;

a means for searching through said database, using said second type of contact information; and

a means for identifying, in the database, alternate contact information of the first type in said query which is related to said second type of contact information, for the same entity.

[c3] A system, as in Claim 2, wherein said second means further comprises a means for repeating said searching and said identifying means, until all related contact information of the type in said query for said entity is identified in said database.

[c4] A system, as in Claim 1, wherein said third means further comprises a means for selecting a single one amongst more than one alternate contact information elements of the same type as said query if a single result per entity is required and if more than one alternate contact point is found.

[c5] A system, as in Claim 1, wherein the contact information

type of said query and the returned data is an Email address.

[c6] A system, as in Claim 2, wherein the contact information type of said query and the returned data is an Email address.

[c7] A system, as in Claim 3, wherein the contact information type of said query and the returned data is an Email address.

[c8] A system, as in Claim 4, wherein the contact information type of query, the alternate contact information elements, and the returned data is an Email address.

[c9] A system according to Claim 1, wherein the system further comprises a means for obtaining permission from the entity in said query, prior to the response to said query.

[c10] A system according to Claim 2, wherein the system further comprises a means for obtaining permission from the entity in said query, prior to the response to said query.

[c11] A system according to Claim 3, wherein the system further comprises a means for obtaining permission from the entity in said query, prior to the response to said

query.

- [c12] A system according to Claim 4, wherein the system further comprises a means for obtaining permission from the entity in said query, prior to the response to said query.
- [c13] A method for returning contact information of one type in response a query having different contact information of the same type, for the same entity, comprising the steps of:
- a) accessing a database of contact information of a plurality of types corresponding to a plurality of entities;
  - b) comparing said first type of contact information in said query with the contents of said database;
  - c) if said first type of contact information in said query is included in said database, identifying contact information of a second type in said database, which is related to said first type of contact information in said query;
  - c2) identifying, in said database, one or more alternative contact information elements of the first type related to the entity in said query by using said second type of related contact information to search said database;
  - c3) generating a response to said query which includes the identified alternate contact information of the first type related to said entity in said query; and
  - d) generating a response indicating that alternate con-

tact information of the first type for said entity is not included in said database, if this is the case.

- [c14] A method, as in Claim 9, further comprising the steps of repeatedly searching the database, using said second type of contact information and alternate contact information of said first type for repeatedly searching said database, until all related contact information of said first type for said entity is identified in said database.
- [c15] A method according to Claim 9, further comprising the step of obtaining permission from said entity, prior to said response to said query.
- [c16] A method according to Claim 11, wherein the step of obtaining permission from said entity comprises the additional steps of:
- 1) generating and transmitting a permission request to said entity;
  - 2) obtaining permission from said entity; and
  - 3) discarding contact information for said entity from said response if said permission is not obtained.
- [c17] A method, according to Claim 9, further comprising the additional step of identifying the single alternate contact information element which is most beneficial to the initiator of the query, prior to generating a response to said

query, if more than one contact information element of said first type is identified in the database.

[c18] A method, according to Claim 9, wherein the first type of contact information in said query and the alternate contact information in said response are Email addresses.

[c19] A method, according to Claim 10, wherein the first type of contact information in said query and the alternate contact information in said response are Email addresses.

[c20] A method, according to Claim 11, wherein the first type of contact information in said query and the alternate contact information in said response are Email addresses.

[c21] A method, according to Claim 12, wherein the first type of contact information in said query and the alternate contact information in said response are Email addresses.

[c22] A method, according to Claim 13, wherein the first type of contact information in said query and the alternate contact information in said response are Email addresses.

[c23] A method for returning contact information of one type

in response a query having different contact information of the same type, for the same entity, comprising the steps of:

- a) accessing a database, said database having been populated with a plurality of contact information corresponding to a plurality of entities;
- b) comparing said contact information in said query with said plurality of contact information in said database;
- c) if the contact information in said query is included in said database, identifying an entity in said database that matches the entity in said query and is associated with the contact information in said query;
- c2) identifying all the other alternate contact information of the same type as in said query associated with the entity in said database;
- c3) generating a response to said query which includes the alternate contact information identified for the entity in the query, and
- d) generating a response indicating if alternate contact information for the entity in said query is not included in said database.

[c24] A method, according to Claim 19, wherein the contact information in said query and the alternate contact information in said response are Email addresses.

[c25] A system for populating and maintaining a contact information database comprising:

- a) a database containing a plurality of contact information for a plurality of entities, said contact information being associated with the appropriate entity and said contact information comprising an Email address and at least one from the group consisting of: an Email address, a name, a postal address, a governmentally issued identifying number, a birth date, and a telephone number;
- b) a receiver for receiving one or more datasets, each dataset having a plurality of contact information, said contact information comprising at least two from the group consisting of: an Email address, a name, a postal address, a governmentally issued identifying number, a birth date, and a telephone number;
- c) an identifier for identifying selected data from the dataset to be merged into said database; and
- d) a data merger module for merging selected data into said database.

[c26] The system according to Claim 21, wherein the system additionally comprises a computing device for controlling said database, said receiver, said identifier, and said data merger module.

[c27] A method for populating and maintaining a contact information database comprising the steps of:



- a) establishing a database having a plurality of first data records, said first data records comprised of an Email address and an associated contact element information, said contact information element comprises at least one from the group consisting of: an Email address, a name, a postal address, a governmentally issued identifying number, a birth date, and a telephone number;
- b) receiving one or more datasets, each dataset having a plurality of data second records, said second data records including at least two from the group consisting of an Email address, a name, a postal address, a governmentally issued identifying number, a birth date, and a telephone number;
- c) identifying selected data from said second data records to be merged into said database; and
- d) merging said selected data into said database.

[c28] The method according to Claim 23, wherein the step c) of identifying selected data further comprises the steps of:

- c1) comparing each data record of each dataset with the contents of said database; and
- c2) identifying and selecting any data that does not exist in said database to be merged into said database.

[c29] The method according to Claim 23, wherein the step c) of identifying selected data further comprises the steps

of:

c1) comparing each record of each dataset with a previously received version of the record, if such version exists;

c2) determining whether any of the data elements pertaining to an entity in the dataset have changed since the previously received version of the record; and

c3) selecting changed data elements for merging into said database.

[c30] The method, as in Claim 25, wherein said changed data elements for merging into said database are Email addresses.

[c31] The method according to Claim 23, wherein the step c) of identifying selected data further comprises the steps of:

c1) grouping each record of each dataset with other records in the dataset and/or records in the database by contact information other than an Email address that can be used to identify a entity;

c2) identifying records that share the same data elements used in c1) but have different Email addresses; and

c3) selecting the multiple email addresses identified for an entity for merging into said database.

- [c32] The method according to Claim 23, wherein the step c) of identifying selected data further comprises the step of identifying all received data records as candidates for merging into the database.
- [c33] The method according to Claim 23, wherein the step c) is performed in a computing device.
- [c34] The method according to Claim 23, wherein the step c) of identifying selected ones further includes a step of comparing similar, but inexact, contact data elements to determine if the data elements are equivalent.
- [c35] The method according to Claim 23, wherein the step d) of merging the selected contact information elements comprises an additional step of inserting each one of plurality of selected contact information elements and relationships between contact information elements and entities into said database.
- [c36] The method according to Claim 23, further comprising the steps of:
- e) periodically receiving a plurality of datasets, each dataset having a plurality of second data records; and
  - f) repeating step c) through e).